

Take your time and make sure you follow all instructions. Where necessary, work must be shown in order to receive partial credit. Include input into the calculator in order to receive partial credit.

1. Identify the following variables as Categorical or Quantitative. [2 pts each]
 - a) Student's cell phone numbers.
 - b) The values of houses in a community
 - c) The Residential College a Student is assigned.

2. The following table shows the breakdown of people at a university with residential colleges and if they participate in their perspective residential college.

Residential College Activity		
STATUS	Active	Not Active
Resident Student	2500	1000
Commuter Student	500	3500
Faculty/Staff	200	600

- a) What percent of people at the university are commuters? [4 pts]

- b) What percent of residents at the university are active in their residential college? [4 pts]

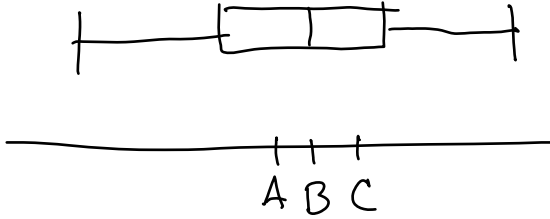
- c) What percent of active members in their residential college are commuters? [4 pts]

[3 pts each graph]

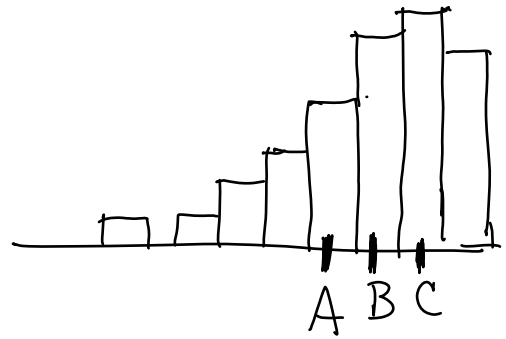
3. For the given graphs determine the following information:

- Is the distribution symmetric, skewed to the left, or skewed to the right?
- Which letter represents the location of the MEDIAN?
- Which letter represents the location of the MEAN?

a)



b)



4. Calculate the standard deviation for the following numbers by filling in the table below and using the formulas discussed in class. (Work must be shown in order to receive ANY credit) [12 pts]

x	$x - \bar{x}$	$(x - \bar{x})^2$
5		
6		
9		
12		

5. The following are the lifespans (in months) of tagged deer in a National Forest.

[34 pts]

12 24 25 29 33 35 36 39 41 41 43 53 65 83

a) Construct a regular stem and leaf plot.

b) Use your calculator functions to find the Mean and the Standard Deviation for the rainfalls.

c) Determine the Five-Number Summary and construct a boxplot.

6. The average annual yield in bushels for corn in a certain area is normally distributed with a mean of 180 bushels and a standard deviation of 15 bushels. Answer the following using either the Normalcdf or InvNorm commands on your calculator. Show commands entered into the calculator for partial credit. [6 pts each]

a) What is the average yield for a year that has a z-score of -2.3 ?

b) What percent of years have average yields between 170 bushels and 210 bushels?

c) What percent of years have average yields below 155 bushels?

d) The upper 25% of years have average yields above what value?

e) The middle 70% of years have average yields between what values?